Remarks

This communication is considered fully responsive to the first Office Action mailed January 30, 2007. Claims 1-20 were examined. Claims 1-20 stand rejected. Claims 1-4, 6-8, 10-12, 16 and 20 have been amended. No claims have been canceled or added. Reexamination and reconsideration of claims 1-20 are respectfully requested.

Objection to the Specification

The Office Action objected to the Abstract because of the use of the phrase "then use" in line 14 and a request was made to change the phrase to "then uses." However, the phrase refers back to two items, the client and the system node. Consequently, the Applicant respectfully asserts that the word "use" is proper, not "uses," and no correction is required.

Claim Objections

The Office Action objected to claims 6, 8, 11, 12 and 20 due to informalities. These claims have been amended to correct the errors. Claim 7 has also been amended to correct an informality.

Double Patenting Rejection

The Office Action rejected Claim 12 under statutory (§101) double patenting as claiming the same invention as that of claim 11 of commonly-owned, co-pending U.S. Patent Application No. 10/726,231. The Applicant notes that the claims of the co-

pending application have not yet been allowed and there is no assurance that claim 11 of that application will be allowed and issue in its current form. Therefore, the Applicant believes that the double-patenting rejection is premature and, if made at all, should have been a provisional rejection.

More importantly, however, the Applicant traverses the rejection based on its merits: the two claims are not coextensive in scope and therefore do not claim the same invention. The Office Action quoted the discussion of the statutory double-patenting rejection found in MPEP 804 IIA which, citing court opinions, states that "'[s]ame invention' means identical subject matter." Claim 11 of the co-pending application and claim 12 of the present application do not claim "identical subject matter." For example, the control node of claim 12 is linked to both the client and the system node whereas the authorization module of claim 11 does not recite a link to the system host. The control node of claim 12 provides session information to both the client and the system node whereas the authorization module of claim 1 does not provide the system host with any information. The session information of claim 12 is provided to the client and the system node only if both satisfy at least one condition for accessing each other whereas claim 11 only recites that the client must be authorized to access the system host. The data node of claim 12 is coupled to the control node whereas a link is not recited between the verification module and authorization module in claim 11. The data node of claim 12 receives requests from both the system node and the client to access the other whereas the verification module of claim 11 only receives a request from the system host to verify that the client is authorized to access the host. Finally, claim 11 does not recite the

establishment of a secure authenticated connection between the client and the system host as recited in claim 12 nor that the connection is based at least in part on session information. Consequently, the two claims do not cover "the same subject matter" and the Applicant requests that the rejection be withdrawn. The Applicant would also like to note that foregoing comments do not in any way imply that the Applicant concedes that there is a equivalence between elements recited in claim 12 with elements recited in claim 11.

The Office Action also rejected claims 1 and 8 under non-statutory obviousness-type double patenting as being unpatentable over claims 1 and 6, respectively, of U.S. Patent Application No. 10/726,231. The Applicant respectfully disagrees with the rejection and also asserts that the rejection, if made at all, should have been provisional. MPEP 804 IIB, again quoted in the Office Action, states that a non-statutory obviousness-type double patenting rejection is appropriate if "the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s)." The Applicant respectfully disagrees with the analysis provided in paragraph 6 of the Office Action which asserts that "[t]he general concept of sending and receiving a request from the client and the server in order to communicate is well known in the art as an obvious communication technique." Such a statement ignores the separate functions of the control node and the data node of claim 1 of the present Application. Conventionally, when one node desires to communicate with another node, it initiates a request directed at the other node. In the present invention, however, a control node and a data node perform security functions between the client and the system node and both the client and system node must send

respective requests to the control node for each to access the other. Claim 1 of the co-pending application does not recite or suggest such steps. The forgoing comments apply equally to the traversal of the rejection of claim 8 of the present Application. Consequently, claims 1 and 6 of the co-pending application do not render claims 1 and 8 of the present Application obvious and the Applicant requests that the rejection be withdrawn.

Claim Rejections - 35 U.S.C. 101

The Office Action rejected claims 8-11, 12-18 and 20 under 35 U.S.C. 101 as being directed to non-statutory subject matter. However, the Applicant does not understand much of Paragraph 8 of the Office Action. First, the Applicant does not understand the reference to "page 2 section [0023] of the specification." Page 2 includes parts of paragraphs [0004] and [0006] and all of paragraph [0005] and none of these paragraphs appear to apply to the rejection. Paragraph [0023] is on page 8 and also does not appear to apply to the rejection. Clarification is requested.

The Applicant also does not understand the next sentence: "A computer program product can be considered authentication software as such claim 1 is classified as functional descriptive material." Clarification is requested, including an explanation of the relevance of claim 1 to this rejection.

The rejection then states that "[i]n addition, there is no evidence of the process being taking place on a computer in the claim." However, rejected claim 8 recites: "A computer program product encoding computer programs for executing on a control node and a data node a computer process...." It is quite clear from this preamble that

the "computer process" takes place on a computer. Moreover, the use of the term "node" is explained in paragraph [0020] on page 7 of the Specification: "As used herein, the term "node" is used to refer to hardware and software (entire computer system) used to perform various network services." Therefore, if this rejection is maintained, clarification is requested.

More generally, the Applicant disagrees with implication of the broad assertion in paragraphs 8 and 9 of the Office Action that "it appears that the computer program product would reasonably be interpreted by one of ordinary skill in the art as software, per se ...." The implication is that a computer program product is unpatentable. However, computer program product claims have been upheld as being statutory subject matter since at least the Beauregard decision.

Consequently, the Applicant respectfully requests that the rejection of claims 8-11, 12-18 and 20 under §101 be withdrawn or at least clarified in a subsequent, non-final Office Action.

Claim Rejections - 35 U.S.C. 102(b)

The Office Action rejected claims 1-20 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,995,112 to Aoyama (hereinafter referred to as "Aoyama"). Applicant respectfully traverses this rejection.

Claim 1, as amended, recites "A method comprising generating session information at the control node in response to a request from a client to access a system node and sending the session information to the client, the system node, and a data node if the client and system node satisfy at least one condition for accessing

each other, receiving at the data node a request from the client to access the system node and a request from the system node to access the client and establishing a first secure authenticated connection between the client and the system node via the data node based at least in part on the session information." Independent claims 8 and 12 include parallel recitations. Aoyama fails to teach or suggest all of these recitations.

For example, Aoyama fails to disclose or suggest generating session information at the control node in response to a request from the client and fails further to disclose or suggest sending the session information to all three other components: the client, the system node and the data node. Additionally, Aoyama fails to disclose or suggest receiving at the data node two requests: a request from the client to access the system node and a request from the system node to access the client. In fact, Aoyama fails to even disclose both a data node and a control node. Rather, in the system of Aoyama, a component (element 3 in FIG. 3) of the node designated as node 1 (element 2) merely serves as a "pass-through unit" by passing an access request to the node which the work station desires to access if the request includes the proper password. At no time does the target node receive any session information from node 1 (including the pass-through unit) nor does the target node send to node 1 (including the pass-through unit) a converse request to access the work station.

Thus, the components in Aoyama do not perform all of the functions recited in the claims and perform different functions than those recited in the claims. Consequently, Aoyama does not anticipate claims 1, 8 or 12.

With respect to claim 2, fails to disclose or suggest receiving at the control node a request form the client for session information. As previously noted, the

system of Aoyama does not disclose session information. The Office Action equates the "access request data" of Aoyama with session information. However, the "access request data" is merely that (data pertaining to the access request) and has the work station as its source. In contrast, it is the control node of the present invention which generates the session information and sends it TO the client (as well as to the data node and the system node) when requested by the client. Consequently, claim 2 is not anticipated by Aoyama.

With respect to claim 3, the Office Action asserts that "it is factual that ...." Thus, the Office Action cites no passage in the §102 reference that the system node is registered with the control node before the control node receives the request from the client. While this might be appropriate in a §103 obviousness rejection, the Applicant does not believe that such a statement is appropriate, even if true, in a §102 anticipation rejection in which all of the claimed elements must be present or inherent in a single reference. Specifically, the Applicant disagrees with the assertion that "the server's network address has to be registered." In many networks, addresses are not registered. Instead, a data packet will contain a target address along with the data. A node on the network will compare the target address with its own address and, if they are the same, the node will accept the packet. Consequently, the statement in the Office Action is not part of all network protocols. Therefore, claim 3 is not disclosed by Aoyama and Aoyama does not anticipate claim 3.

The recited elements of claim 4 are similarly not disclosed or inherent in Aoyama. There may be numerous system nodes on the network and yet only some of them may be registered with the control node, indicating their potential availability for

access by the client. Moreover, not all system nodes may be available to all clients. The system of Aoyama is password-centric in that each node is associated with one or more passwords. Only if the work station transmits the correct password will the work station be granted access to the desired node. Aoyama does not specifically or impliedly disclose providing the list of nodes to the client. Consequently, Aoyama does not anticipate claim 4.

With respect to claim 6, the cited passages in Aoyama (col. 2, lines 15-20, lines 52-53 and line 66) merely describe the directory which contains a list of nodes and corresponding passwords. No connection is made between the directory and any host unit. Consequently, Aoyama does not anticipate claim 6.

The comments supporting the traversal of the rejection of claim 4 apply with respect to the rejection of claim 9 (although claim 9 only recites registering the system node, not providing a list of registered system nodes to the client).

With respect to claims 10 and 14, as described in the Specification and recited in the amended claim, the updated dynamic address for the system node is maintained in a client database at the control node. The address is not kept at the client. Moreover, Aoyama does not disclose the use of a dynamic network address. It is noted in paragraph [0026] of the Specification that "[u]se of a dynamic network address adds another layer of security to the network connection because a client 220 cannot simply store the network address and reuse it at a later time to regain access to the system node 230. Instead, the dynamic network address is updated at the control node 210 and the client 220 has to request the current network address from the control node

210 before the client 220 is able to access the system node 230." Consequently, Aoyama does not anticipate claim 10.

In addition to the comments made above with respect to claims 1, 6 and 12, some further comments are warranted with respect to claim 12. The Office Action equates the pass-through unit of Aoyama with the control node of claim 12 and the directory of Aoyama with the data node of claim 12. The Applicant respectfully disagrees with the assertion of equivalence and that Aoyama discloses each element of claim 12. For example, the directory of Aoyama is merely that- a directory which is part of a storage device associated with the pass-through unit (column 2, lines 65-68 of Aoyama). The directory contains nodes and corresponding passwords (FIG. 5). The director is not a node as described in the present Application and cannot receive requests from the work station or from a node. Aoyama does not disclose or suggest that the storage device communicates with any component other than the pass-through unit. Implicit is that the communications between the storage device and the pass-through unit are conventional I/O commands and data; the directory does not perform any network operations. Thus, Aoyama fails to disclose a data node, a data node that receives a request from the client to access the system node, a data node that receives a request from the system node to access the client, or a data node that establishes any connection between the client and the system node. Consequently, Aoyama does not anticipate claim 12.

The comments supporting the traversal of the rejection of claims 5-7 apply with respect to the rejection of claims 11 and 16.

With respect to claim 13, as noted above, the session information is generated by the control node and provided to the data node, the client and the system node. In contrast, the access request data of Aoyama is generated by the work station. Consequently, claim 13 is not anticipated by Aoyama.

With respect to claim 17, as noted above in the comments traversing the rejection of Claims 10 and 14, the "client database" is maintained at the control node, not, as asserted in the Office Action, at the client. Consequently, claim 17 is not anticipated by Aoyama.

With respect to claim 18, the data structure is maintained by the control node (see claim 17), not by the client. Consequently, claim 18 is not anticipated by Aoyama.

In addition, the Applicant respectfully asserts that the dependent claims are further allowable based on the allowability of the respective independent claims.

Consequently, Aoyama does not anticipate claims 1-20 and withdrawal of the §102 rejection is respectfully requested.

Conclusion

For the foregoing reasons, the pending claims are believed to be allowable, the Application is believed to be in condition for allowance and the Applicant respectfully requests that a timely Notice of Allowance be issued in this matter. The Examiner is encouraged to contact the undersigned by telephone if a conversation would expedite prosecution of this case.

Respectfully Submitted,

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